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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,341	07/05/2001	Naimish Patel	SYCMR-026XX	2622

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EXAMINER	
TRAN, DZUNG D	

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/899,341	PATEL ET AL.	
	Examiner	Art Unit	
	Dzung D Tran	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *amendment filed on 08/12/2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a plurality of failure detectors at predetermined positions in each of the link, wavelength and fiber layers and a plurality of protection switching elements at predetermined positions in each of the link, wavelength and fiber layers" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 1, it claimed "a plurality of failure detectors at predetermined positions in each of the link, wavelength and fiber layers and a plurality of protection switching elements at predetermined positions in each of the link, wavelength and fiber layers; a first set of intralayer communication channels within each of the link, wavelength and fiber layers for sending the failure signals between the failure detectors and the protection switching elements, and a second set of interlayer communication channels between adjacent ones of the link, wavelength and fiber layers for sending the failure signals between the failure detectors and the protection switching elements", which is not

shown in the drawing. It is unclear how the failure detectors and protection switching are positioned in each of the link, wavelength and fiber layers.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishman US patent no. 6,046,832 in view of Sugawara et al. US patent no. 6,785,225.

Regarding claims 1 and 11, as far as examiner understood, Fishman discloses a system for protecting a wavelength division multiplexing optical communications network operating at the link, wavelength and fiber layers (figure 2), comprising: a plurality of failure detectors at predetermined positions in each of the link, wavelength and fiber layers for detecting communication failures of paths in the network and generating failure signals in response thereto (col. 5, lines 57-61);

a plurality of protection switching elements (figures 2-5, elements 100, 200, 300, 400, 111, 211, 311, 411, 212, 72, col. 4, lines 61-63, col. 5, lines 1-2, col. 6, lines 46-48col. 7, lines 9-22) at predetermined network connections in each of the link (e.g. protection link, col. 3, line 48), wavelength (e.g. protection wavelength, col. 5, line 64 to

col. 6, line 2) and fiber (e.g. protection fiber, col. 3, line 48) layers for receiving said failure signals and controlling the protection switching in response thereto; and

the failure detector reports the power failure to the control system (col. 5, lines 60-61). The control system provides commands for the node to control the switches (col. 5, lines 61-64). Fishman differs from claims 1 and 11 of the invention in that he does not discloses a first set of intralayer communication channels within different link, wavelength and fiber layers for sending the failure signals between the failure detectors and the protection switching elements, and a second set of interlayer communication channels between adjacent ones of the link, wavelength and fiber layers for sending the failure signals between the failure detectors and the protection switching elements. Sugawara discloses a first set of intralayer communication channels within each of the link, wavelength and fiber layers for sending the failure signals between the failure detectors and the protection switching elements (figure 10, col. 9, lines 41-65), and a second set of interlayer communication channels between adjacent ones of the link, wavelength and fiber layers for sending the failure signals between the failure detectors and the protection switching elements (col. 11, lines 45-67). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the teaching of Sugawara in the system of Fishman. One of ordinary skill in the art would have been motivated to do that in order to achieve interlayer coordinated communication line switching in a communication system or network comprising multiple layers each having a switching function so that the interlayer coordinated

communication line switching can be made in a shorter time and is more efficient and reliable (col. 5, lines 16-25).

Regarding claims 2, 12, Sugawara discloses the lower layer apparatus 300 and 310 detects the failure and send out an AIS through all the upper layer lines 500-502.

Regarding claims 3 and 4, Sugawara discloses failure is detected by using error detecting system or byte interleaved parity (col. 8, lines 20-26) (e.g. detect the error code and data byte in the USM). Furthermore, to send the failure information signal over the modulated carrier frequency is well recognized in the art.

Regarding claims 5 and 6, Sugawara discloses in figure 10, the failure information signal (same as USM or DSM signal) for controlling the protection switching.

Regarding claims 7 and 13, Sugawara discloses the switching elements initiate the protection in response to the failure information signal (col. 3, line 64 to col. 4, line 13)

Regarding claim 9, Sugawara discloses failure is detected by using loss of signal (LOS) (col. 8, line 21). Furthermore, using LOS, LOF or LOP to indicate the signal failure in SONET system is well recognized in the art.

Regarding claims 8, 10 and 15, Fishman discloses span switching (col. 2, lines 51-60) and route switching (col. 4, lines 61-67).

Regarding claim 14, Fishman discloses a protection path (col. 7, line 28).

Response to Arguments

5. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DT
10/28/2004

M. R. Sedighian
M. R. SEDIGHIAN
PRIMARY EXAMINER